GOVERNMENT OF INDIA
WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION
LOK SABHA

UNSTARRED QUESTION NO:1403
ANSWERED ON:09.03.2017
Impact of Climate Change on Water Resources
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Will the Minister of WATER RESOURCES, RIVER DEVELOPMENT AND GANAGA REJUVENATION be pleased to state:

(a) whether the Government has noticed that demand and supply gap for water is projected to rise to about 50% by 2030 with demands doubling from current levels of 700 billion cubic meters to around 1498 billion cubic meters and supply barely reaching 744 billion cubic meters, if so, the details and the facts thereof;
(b) whether the Government has any concrete action plan to tackle the situation, if so, the details thereof along with the steps taken in that direction; and
(c) whether the Government has any machanism for the assessment of impact of climate change on water resources, if so, the details thereof ?

Answer

THE MINISTER OF STATE FOR WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION

(DR. SANJEEV KUMAR BALYAN)

(a) The average annual water availability of any region or country is largely dependent upon hydro-meteorological, topographical, geological etc. factors and is constant. As per National Commission on Integrated Water Resources Development (NCIWRD) report (year 1999), the total water availability of India as a whole received through precipitation is about 4000 Billion cubic meter (BCM) per annum. After evaporation, 1869 BCM water is available as natural runoff. Due to topographical and other factors, the utilizable water availability is further limited to 1123 BCM per annum. However, water available per person is dependent on population of the country and for India, water availability per capita is reducing progressively due to increase in population. The average annual per capita water availability in the years 2001 and 2011 has been assessed as 1820 cubic meters and 1545 cubic meters respectively which may reduce further to 1341 and 1140 in year 2025 and 2050 as per NCIWRD report indicating thereby a widening gap between demand and availability of water.
(b) Water being a State Subject, State Governments undertake several measures for augmenting, conserving and utilizing the water resources which inter-alia include conservation of water resources in reservoirs and traditional water bodies, rain water harvesting, artificial recharge of ground water etc. This Ministry provides technical and financial assistance to the State Governments in this regard through various schemes and programmes viz. Accelerated Irrigation Benefits Programme, Scheme
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for Repair, Renovation & Restoration of Water-bodies etc. Some of the initiatives taken by this Ministry in this regard are as follows:

(i) A National Perspective Plan (NPP) envisaging inter-basin transfer of water has been formulated by this Ministry to improve water security in the country. The implementation of NPP would give added benefits of approximately 35 million hectare of additional irrigation potential and 34000 mega watts (MW) hydro power generation apart from the incidental benefits of flood moderation, navigation, drinking and industrial water supply, fisheries, salinity and pollution control etc.

(ii) Central Ground Water Board, under this Ministry has prepared a conceptual document entitled "Master Plan for Artificial Recharge to Ground Water in India" during the year 2013 envisaging construction of 1.11 crore Rainwater Harvesting and Artificial Recharge structures in the country to harness 85 BCM (Billion Cubic Meters) of water. The augmented ground water resources will enhance the availability of water for drinking, domestic, industrial and irrigation purposes. The Master Plan has been circulated to all State Governments for implementation.

(iii) Improved water use efficiency in different sectors such as in irrigation (through micro-irrigation, e.g., drip, sprinkler etc.), industry and households is being encouraged through various initiatives, programmes/schemes of the Government. For example,
Water conservation and water harvesting structures to augment ground water constitute a special focus area for MGNREGA works and about 2/3rd of the expenditure is directly related to construction of such structures. One of the goals of National Water Mission launched by the Government is increasing water use efficiency by 20%.

(iv) Recycle and reuse of water, after treatment to specified standards as well as rainwater harvesting and artificial recharge are being incentivized through various initiatives, programmes/ schemes of the Government.

(v) This Ministry has launched Jal Kranti Abhiyan (2015-16 to 2017-18) in order to consolidate water conservation and management in the country through a holistic and integrated approach involving all stakeholders, making it a mass movement.

(c) National Water Mission (NWM) has been established by government of India under National Action Plan for Climate Change. The main objective of the National Water Mission is conservation of water, minimizing wastage and ensuring its more equitable

distribution both across and within States through integrated water resources development and management. The five identified goals of the Mission are: (a) comprehensive water data base in public domain and assessment of impact of climate change on water resource; (b) promotion of citizen and state action for water conservation, augmentation and preservation; (c) focused attention to vulnerable areas including over-exploited areas; (d) increasing water use efficiency by 20%, and (e) promotion of basin level integrated water resources management. Implementation of National Water Mission is a Central Sector Scheme of this Ministry. NWM activities undertaken are: establishment of NWM Directorate, baseline studies, demonstration projects, preparation of State Specific Action Plan (SSAP) for water sector, Human Resource Development & Capacity Building, training and mass awareness programmes for water conservation and improving Water Use Efficiency.

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